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IS 9365 (1980): Fenitrothion granules [FAD 1: Pesticides and Pesticides Residue Analysis]



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IS : 9365- 1980

(Reaffirmed - 2012)

Indian Standard
SPECIFICATION FOR
FENITROTHION GRANULES

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SPECIFICATION FOR FENITROTHION GRANULES

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AMENDMENT NO. 1 SEPTEMBER 1982

TO

IS:9365-1980 SPECIFICATION FOR FENITROTHION GRANULES

Alterations

(Page 4, Clause 2.2.1) - Substitute the following for the existing:

"2.2.2 Description - The product shall consist of dry, free flowing granules, free from visible extraneous matter and dust except for the amount specified (see 2.2.3). It may contain added colouring matter."

(Page 4, Clause 2.2.2, line 1) - Substitute "Sieving Requirements" for "Particle Size".

(Page 4, Clauses 2.2.2, 2.2.3, 2.2.5 and Page 5, Clause 2.3.2) - Substitute "IS:6940-1982" for "IS:6940-1973" wherever occurs.

(Pages 4 and 5, Footnote) - Substitute "Methods of tests for pesticides and their formulations (first revision)" for "Methods of tests for pesticides and their formulations" wherever occurs.

(Page 4, Clause 2.2.2.1) - Substitute the following for the existing:

"The ratio of lower to upper limit of the sieve sizes declared under Clause 2.2.2 shall not exceed 1:3".

(Page 4, Clause 2.2.4.1, line 1) - Substitute "24 hours" for "14 days".

(Page 4, Clause 2.2.5) - Substitute the following for the existing:

~~"Fenitrothion Content"~~ Fenitrothion Content - When determined by the method prescribed in Appendix A of IS:5280-1969* and 5.2 the observed fenitrothion content, (percent (m/m)), of any of the samples shall not differ from the nominal value by more than the percent tolerance applied to the declared nominal value as given below:

<u>Nominal Value, Percent</u>	<u>Tolerance, Percent</u>	
Up to 9	+ 10 - 5	} of the nominal value
Above 9 and below 50	± 5	
50 and above	+ 5 - 3	

Deletion

(Page 4, Clause 2.2.3.1) - Delete

**AMENDMENT NO. 2 MAY 1994
TO
IS 9365 : 1980 SPECIFICATION FOR FENITROTHION
GRANULES**

(Page 4, clauses 2.2.4 and 2.2.4.1) — Delete.

(Page 6, clause 4.1) — Substitute the following for the existing:

‘When freshly manufactured material in bulk quantity is offered for inspection, representative samples of the material shall be drawn and tested as prescribed in IS 10627 : 1983 within 90 days of its manufacture. When the material is offered for inspection after 90 days of its manufacture, sampling shall be done as prescribed in IS 10627 : 1983. However, the criteria for conformity of the material when tested, shall be the limits of tolerances, as applicable over the declared nominal value and given under clause 2.3.1 of the standard.’

(FAD 1)

Reprography Unit, BIS, New Delhi, India

Indian Standard
**SPECIFICATION FOR
FENITROTHION GRANULES**

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 29 January 1980, after the draft finalized by the Pest Control Sectional Committee had been approved by the Agricultural and Food Products Division Council and the Chemical Division Council.

0.2 Fenitrothion granules are used for the control of pests of agricultural and public health purposes.

0.3 Fenitrothion granules are generally manufactured to contain 5 percent (*m/m*) of fenitrothion.

0.4 In the preparation of this standard due consideration has been given to the provisions of the Insecticides Act, 1968, and the Rules framed thereunder. However, this standard is subject to the restrictions imposed under these, wherever applicable.

0.5 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard prescribes the requirements and the methods of sampling and test for fenitrothion granules.

2. REQUIREMENTS

2.1 Constituents — The material shall consist of fenitrothion, technical, as the only active ingredient impregnated on suitable carrier(s) together with binder(s), stabilizer(s) and/or other formulants.

*Rules for rounding off numerical values (*revised*).

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2.1.1 Fenitrothion technical employed in the formulation of this material shall conform to IS : 5280-1969*.

2.2 Physical — The material shall comply with the physical requirements specified in 2.2.1 to 2.2.5.

2.2.1 Description — The product shall consist of dry, free flowing granules, free from visible extraneous matter and dust except for the amount specified (see 2.2.3). It may contain added colouring matter. When dusted from a granule applicator, the material shall come freely without clogging or bridging the apparatus.

2.2.2 Particle-Size — Not less than 97 percent by mass of the product shall pass through a test sieve having a mesh size of the upper declared limit and not more than 5 percent by mass of the product shall pass through a test sieve having a mesh size of lower declared limit when determined by the method described in 12.1 of IS : 6940-1973† [see 3.2(a)].

2.2.2.1 The ratio of lower to upper particle sizes shall not exceed 1 : 3.

2.2.3 Dust — When determined by the method described in 12.1 of IS : 6940-1973†, not more than 1.0 percent by mass of the product shall pass through a 75-micron IS Sieve‡.

2.2.3.1 The portion passing through this sieve shall not contain more than 8 percent by mass of the declared nominal active ingredient when determined by the method described in Appendix A of IS : 5280-1969*.

2.2.4 Storage Stability

2.2.4.1 Heat stability — After storage at $54 \pm 2^\circ\text{C}$ for 14 days the product shall continue to comply with the requirements of 2.2.1 to 2.2.4, 2.3.1 and 2.3.2.

2.2.5 Moisture Content — When determined by the method prescribed in 4 of IS : 6940-1973†, the moisture content of the material shall not exceed 4.0 percent by mass.

2.3 Chemical — The material shall comply with the chemical requirements specified in 2.3.1 and 2.3.2.

2.3.1 Fenitrothion Content — When determined by the method prescribed in Appendix A of IS : 5280-1969* and 5.2 the observed fenitrothion content, percent (m/m), of any of the samples shall not differ from the

*Specification for fenitrothion, technical.

†Methods of tests for pesticides and their formulations/

‡See IS : 460 (Part I)-1978 Specification for test sieves: Part I Wire cloth test sieves (second revision).

nominal value by more than the percent tolerance applied to the declared nominal value as given below:

<i>Nominal Value, Percent</i>	<i>Tolerance</i>	
Up to 9	$\begin{matrix} +10 \\ -5 \end{matrix}$	} percent of the nominal value
10 and below 50	± 5	
50 and above	$\begin{matrix} +5 \\ -3 \end{matrix}$	

2.3.1.1 The actual value of the fenitrothion content in the formulations shall be calculated to the second decimal place for rounding off to the first decimal place before applying the tolerances given in **2.3.1**.

2.3.2 Acidity — When tested by the method prescribed in **11.3** of IS : 6940-1973* the acidity (as H_2SO_4) of the material shall be not more than 0.5 percent by mass.

3. PACKING AND MARKING

3.1 Packing — The material shall be packed according to the requirements given in IS : 8190 (Part I)-1980†.

3.2 Marking — The containers shall bear legibly and indelibly the following information and any other information as is necessary under the Insecticides Act and Rules:

- Name of the material and particle size (see **2.2.2**);
- Name of the manufacturer;
- Date of manufacture;
- Batch number;
- Net mass of the contents;
- Nominal fenitrothion content, percent (m/m); and
- A cautionary notice worded as in the Insecticides Act and Rules.

*Methods of tests for pesticides and their formulations.

†Requirements for packing of pesticides: Part I Solid pesticides (first revision) (under preparation).

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3.2.1 The containers may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

4. SAMPLING

4.1 Representative samples of the material shall be drawn as prescribed in 'Indian Standard methods for sampling of pesticides and their formulations' (under preparation).

NOTE — Till such time the standard under preparation is published, the matter shall be as agreed to between the concerned parties.

5. TESTS

5.1 Tests shall be carried out by the appropriate methods referred to in 2.2.1 to 2.2.5, 2.3.1 and 2.3.2.

5.2 Extract the granules equivalent to 1 g of active ingredient continuously in a soxhlet extractor for 6 hours using methyl alcohol as solvent. Distil off the solvent and proceed.

5.3 Quality of Reagents — Unless specified otherwise, pure chemicals and distilled water (*see* IS : 1070-1977*) shall be employed in tests.

NOTE — 'Pure chemicals' shall mean chemicals that do not contain impurities which affect the results of analysis.

*Specification for water for general laboratory use (*second revision*).

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